SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : ORLAV - LIQUIDE VAISSELLE DESINFECTANT

Product code : 0407.

1.2. Relevant identified uses of the substance or mixture and uses advised against

MANUAL KITCHEN HYGIENE

DISINFECTANT

TP 4: Disinfectant for surfaces in contact with food and feed

Main use category : Product intended for strictly professional use.

1.3. Details of the supplier of the safety data sheet

Registered company name : HYDRACHIM.

Address : Z.A. Route de Saint Poix.35370.LE PERTRE.FRANCE.

Telephone : +33 (0)2.99.96.80.08. Fax : +33 (0)2.99.96.82.00.

reglementation@hydrachim.fr

www.hydrachim.fr

FABRICANT

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

Other emergency numbers

European emergency call number : 112

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

May produce an allergic reaction (EUH208).

Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

Biocidal detergent mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS09

GHS05

Signal Word :

DANGER

Product identifiers :

EC 270-325-2 QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES

Additional labeling :

EUH208 Contains (R)-P-MENTHA-1,8-DIENE. May produce an allergic reaction.

Hazard statements :

H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P273 Avoid release to the environment.

P280	Wear protective gloves and eye protection.
Precautionary statements - Response :	
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or a doctor.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
Precautionary statements - Disposal :	
P501	Dispose of contents and container to approved waste disposal facility in accordance with national regulations.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 59 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	Classification (EC) 1272/2008	Note	%
INDEX: 0946 EC: 931-513-6 REACH: 01-2119513359-38-XXXX ALKYLAMIDE PROPYL BETAINE 30%.	GHS05 Dgr Eye Dam. 1, H318 Aquatic Chronic 3, H412		2.5 <= x % < 10
INDEX: 0091 CAS: 68424-85-1 EC: 270-325-2 REACH: 01-2119965180-41-XXXX QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1		2.5 <= x % < 10
INDEX: 0706 CAS: 68891-38-3 EC: 500-234-8 REACH: 01-2119488639-16-XXXX ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS	GHS05 Dgr Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412		0 <= x % < 2.5
INDEX: 601-096-00-2 CAS: 5989-27-5 EC: 227-813-5 (R)-P-MENTHA-1,8-DIENE	GHS02, GHS07, GHS08, GHS09 Dgr Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 Aquatic Acute 1, H400 M Acute = 1	[i]	0 <= x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE
INDEX: 0946 EC: 931-513-6 REACH: 01-2119513359-38-XXXX ALKYLAMIDE PROPYL BETAINE 30%.	Eye Dam. 1: H318 C>= 10% Eye Irrit. 2: H319 4% <= C < 10%	oral: ATE = 2430 mg/kg BW

INDEX: 0091 CAS: 68424-85-1 EC: 270-325-2 REACH: 01-2119965180-41-XXXX QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		oral: ATE = 398 mg/kg BW
INDEX: 0706 CAS: 68891-38-3 EC: 500-234-8 REACH: 01-2119488639-16-XXXX ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS	Eye Dam. 1: H318 C>= 10% Eye Irrit. 2: H319 5% <= C < 10%	oral: ATE = 4100 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

[i] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of an allergic reaction, seek medical attention.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated aera is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- foam
- powder
- carbon dioxide (CO2)
- sprayed water or water mist

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture at all times.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Store in original packaging, tightly closed, protected from light, heat and cold.

Packaging

Always keep in packaging made of an identical material to the original.

Recommended types of packaging :

- Vats
- Drums
- Bottles

Suitable packaging materials :

- Plastic
- Glass
- Compatible grades HDPE.

Unsuitable packaging materials :

- Wood
- Cardboard
- Paper bag
- Textile

7.3. Specific end use(s)

The mixture is a biocidal product. It must not be used for applications other than those described in this safety data sheet and in the technical documents concerning the product.

Do not mix with other biocidal products.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
5989-27-5		5 ppm 28 mg/m3		4(II)

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
5989-27-5	7 ppm 40 mg/m3	14 ppm 80 mg/m3		SSSC

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2750 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	175 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	15 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1650 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	52 mg of substance/m3

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	5.7 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	3.96 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	3.4 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.

DNEL : 3.4 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 1.64 mg of substance/m3

ALKYLAMIDE PROPYL BETAINE 30%.

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 12.5 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 44 mg of substance/m3

Final use: **Consumers.**
Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 7.5 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 7.5 mg/kg body weight/day

Predicted no effect concentration (PNEC):

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)

Environmental compartment: Soil.
PNEC : 0.946 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.24 mg/l

Environmental compartment: Sea water.
PNEC : 0.024 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.071 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 5.45 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.545 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10000 mg/l

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Environmental compartment: Soil.
PNEC : 7 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0009 mg/l

Environmental compartment: Sea water.
PNEC : 0.00096 mg/l

Environmental compartment: Intermittent waste water.

PNEC : 0.00016 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 12.27 mg/kg

Environmental compartment: Marine sediment.
PNEC : 13.09 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 0.4 mg/l

ALKYLAMIDE PROPYL BETAINE 30%.
Environmental compartment: Soil.
PNEC : 0.8 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0135 mg/l

Environmental compartment: Sea water.
PNEC : 0.00135 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 1 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.1 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 3000 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex
- PVC (polyvinyl chloride)
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Neoprene® (Polychloroprene)
- Butyl Rubber (Isobutylene-isoprene copolymer)

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	
Physical state :	Viscous liquid.
Colour	
Color :	Clear yellow
Odour	
Odour threshold :	Not stated.
Melting point	
Melting point/melting range :	Not relevant.
Freezing point	
Freezing point / Freezing range :	Not stated.
Boiling point or initial boiling point and boiling range	
Boiling point/boiling range :	Not relevant.
Flammability	
Flammability (solid, gas) :	Not stated.
Lower and upper explosion limit	
Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.
Flash point	
Flash point interval :	Not relevant.
Auto-ignition temperature	
Self-ignition temperature :	Not relevant.
Decomposition temperature	
Decomposition point/decomposition range :	Not relevant.
pH	
pH (aqueous solution) :	Not stated.
pH :	6.50 +/- 1.5. Neutral.
Kinematic viscosity	
Viscosity :	Not stated.
Solubility	
Water solubility :	Soluble.
Fat solubility :	Not stated.
Partition coefficient n-octanol/water (log value)	
Partition coefficient: n-octanol/water :	Not stated.
Vapour pressure	
Vapour pressure (50°C) :	Not relevant.
Density and/or relative density	
Density :	=1.020 g/cm3 +/- 0.020

Relative vapour density

Vapour density : Not stated.

Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- frost

10.5. Incompatible materials

Keep away from :

- calcium hypochlorite
- sodium hypochlorite

Do not mix with other disinfectants.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

11.1.1. Substances

Acute toxicity :

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)

Oral route :	LD50 = 4100 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 5000 mg/kg bodyweight/day Species : Rat OECD Guideline 402 (Acute Dermal Toxicity)

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Oral route :	LD50 = 398 mg/kg bodyweight/day Species : Rat

ALKYLAMIDE PROPYL BETAINE 30%.

Oral route :	LD50 = 2430 mg/kg bodyweight/day

Species : Rat

Dermal route : LD50 > 2000 mg/kg bodyweight/day
Species : Rat

Respiratory or skin sensitisation :

ALKYLAMIDE PROPYL BETAINE 30%.

Guinea Pig Maximisation Test (GMPT) : Non-sensitiser.
Species : Guinea pig

Germ cell mutagenicity :

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)
No mutagenic effect.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)
No mutagenic effect.

Mutagenesis (in vitro) : Negative.

Ames test (in vitro) : Negative.

Carcinogenicity :

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)

Carcinogenicity Test : Negative.
No carcinogenic effect.

Reproductive toxicant :

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)
No toxic effect for reproduction

11.1.2. Mixture

Skin corrosion/skin irritation :

Corrosivity : No observed effect.
OECD Guideline 431 (In Vitro Skin Corrosion: Human Skin Model Test)

Respiratory or skin sensitisation :

Contains at least one sensitising substance. May cause an allergic reaction.

11.2. Information on other hazards

Endocrine disrupting properties

The mixture does not contain any component considered to have endocrine disrupting properties according to Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 97-53-0 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

CAS 5989-27-5 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)

Fish toxicity : LC50 = 7.1 mg/l
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 1 mg/l
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity :	EC50 = 7.2 mg/l Species : Daphnia magna Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) NOEC = 0.27 mg/l Species : Daphnia magna OECD Guideline 211 (Daphnia magna Reproduction Test)
Algae toxicity :	ECr50 = 27.7 mg/l Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test) NOEC = 0.95 mg/l OECD Guideline 201 (Alga, Growth Inhibition Test)

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Fish toxicity :	LC50 = 1 mg/l Factor M = 1 Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 0.1 mg/l Factor M = 10 Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 = 0.1 mg/l Factor M = 10 Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h NOEC = 0.01 mg/l Factor M = 1 Species : Pseudokirchnerella subcapitata OECD Guideline 201 (Alga, Growth Inhibition Test)

ALKYLAMIDE PROPYL BETAINE 30%.

Fish toxicity :	LC50 = 1.11 mg/l Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test) NOEC = 0.135 mg/l OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)
Crustacean toxicity :	EC50 = 1.9 mg/l Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) NOEC = 0.3 mg/l Species : Daphnia magna
Algae toxicity :	ECr50 = 2.4 mg/l Duration of exposure : 72 h NOEC = 0.6 mg/l

12.1.2. Mixtures

The surfactants contained in this preparation comply with biodegradability criteria as defined in Regulation (EC) No. 648/2004 on detergents. The data proving this assertion are held at the disposal of the competent authorities of the Member States and will be supplied to them at their express request or at the request of the detergent producer.

12.2. Persistence and degradability

12.2.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS (CAS: 68891-38-3)
Biodegradability : Rapidly degradable.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)
Biodegradability : Rapidly degradable.

ALKYLAMIDE PROPYL BETAINE 30%.
Biodegradability : Rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

ALKYLAMIDE PROPYL BETAINE 30%.
Bioaccumulation : BCF = 71

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)
Octanol/water partition coefficient : log Koe < 3.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The blend does not contain any ingredients considered persistent, bio-accumulating and toxic (PBT), or very persistent and very bio-accumulating (vPvB) at levels of 0.1% or greater, in accordance with appendix XIII of the REACH regulation (EC) n°1907/2006.

12.6. Endocrine disrupting properties

The mixture does not contain any component considered to have endocrine disrupting properties according to Article 57, point f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2022 [41-22] - ICAO/IATA 2023 [64]).

14.1. UN number or ID number

3082

14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(quaternary ammonium compounds, benzyl-c12-16-alkyldimethyl, chlorides)

14.3. Transport hazard class(es)

- Classification :

9

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A. S-F	274 335 969	E1	Category A	-

Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1

Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(quaternary ammonium compounds, benzyl-c12-16-alkyldimethyl, chlorides)

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The mixture is a biocidal product. It must not be used for applications other than those described in this safety data sheet and in the technical documents concerning the product.

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

Labelling for detergents (EC Regulation No. 648/2004,907/2006) :

- less than 5 % : anionic surfactants
- 5 % or over but less than 15 % : cationic surfactants

- 5 % or over but less than 15 % : amphoteric surfactants
- disinfectants
- perfumes
- allergenic fragrances :

Citral

Linalool

Limonene

Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES	68424-85-1	60.00 g/kg	04

Product-type 4 : Food and feed area.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 :

Classification in accordance with Regulation (EC) No 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method.
Eye Dam. 1, H318	Calculation method.
EUH208	Calculation method.
Aquatic Acute 1, H400	Calculation method.
Aquatic Chronic 2, H411	Calculation method.

Wording of the phrases mentioned in section 3 :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS05 : Corrosion
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.